UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,647	10/11/2001	Thomas H. Wright	ASD-15; H6206 (51021 CON1	2560

74701 7590 01/28/2008

ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST
255 S ORANGE AVENUE
SUITE 1401
ORLANDO, FL 32801

EXAMINER	
CROSLAND, DONNIE L	

ART UNIT	PAPER NUMBER
2612	

NOTIFICATION DATE	DELIVERY MODE
01/28/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

creganoa@addmg.com

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/976,647
Filing Date: October 11, 2001
Appellant(s): WRIGHT ET AL.

RICHARD K. WARTHER
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11-05-07 appealing from the Office action mailed 4-10-07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,943,399	**BANNISTER ET AL**	**8-1999**
5,652,717	**MILLER ET AL**	**7-1997**
5,463,656	**POLIVKA ET AL**	**10-1995**
5,351,194	**ROSS ET AL**	**9-1994**
4,729,102	**MILLER, JR. ET AL**	**3-1988**

(9) Grounds of Rejection

Specification

The amendment filed 5-10-06 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The inclusion of "wherein said flight data includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft" is new matter unsupported by the original disclosure.

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 59-75 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claim language "wherein said flight data includes time, airspeed, altitude, vertical acceleration, and heading data relating to a flight of the aircraft" is new matter unsupported by the original disclosure.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 59, 62-70, and 75 rejected under 35 U.S.C. 103(a) as being unpatentable over Ross in view of Miller, Jr. (4729102), already of record.

Ross shows an aircraft data transmission system, the aircraft having a data acquisition unit 10 comprising a communication unit 24 located in the aircraft and in communication with the data acquisition unit 10; a cellular infrastructure (col. 4, lines 40-50) in communication with the communication unit 10 after the aircraft has landed, wherein the communication is initiated automatically upon landing of the aircraft; and a data reception unit 32 in communication with the cellular infrastructure, see col.5, lines 48 et seq., wherein after the aircraft has landed, a second switch 14 communicates with the controller 10; further in col. 6, lines 13-36, acquired aircraft data is automatically

communicated to the flight center's controller 32 upon the aircraft being downed. The term downed equates to landing, also, see claims 12 and 13.

Accordingly, Ross clearly disclose the automatic activation of a second switch 14 associated with the landing or downing of the aircraft in which relevant acquired data is communicated through a cellular infrastructure to a ground base receiver, col. 5, lines 48-.66.

With respect to claim 62, Ross discloses a modem, col. 6, and lines 48-51.

With respect to claim 63 an antenna is inherent in cellular infrastructures of Ross.

With respect to claim 64 the recited "router" is inherent in the cellular infrastructure of Ross are conventionally associated with cell infrastructures.

With respect to claim 69 recitation of a digital flight data acquisition unit, Ross discloses controller 10 can be a TI Travelmate 4000, col. 6, lines 37-40.

With respect to claim 67, receiver for data can be a mainframe, col. 5, and lines 1-4.

Claims 65, 68, and 69 are clearly met by Ross as discussed above.

Claim 75 is clearly met by Ross with respect to processors in both the aircraft and the ground station each processing information with respect to a computer readable medium as illustrated in the flow chart in figure 2.

Ross provides for a data storage medium having stored thereon flight data gathered in flight, the controller 10 being a Texas Instrument notebook computer, col. 6, lines 37-45. The controller 10 inherently has a memory for storage purposes.

Ross further suggests that in an alternate embodiment, the controller 10 communicates flight data such as altitude, air speed, and direction of the aircraft, the downloading or transmission of the flight data being activated due to downing or impact of the aircraft col. 6, lines 13-36.

Accordingly, it is clearly realized form the teachings of Ross, the provision of a switch activated due to landing or the aircraft being down which transmits flight data such as altitude, air speed, and direction of the aircraft.

It should be noted that flight data (status) gathered in flight as well as flight plan data is communicated to a data reception unit.

Ross fails to suggest the specified flight data of "vertical acceleration".

Miller shows the aircraft data transmission system with a data storage medium in flight data recorder data acquisition circuitry 10, figure 1.

Miller further suggests the specific flight data that includes vertical acceleration, see col. 7, lines 44-68, col. 8, lines 1-24, col. 9, lines 1-16, col. 10, lines 29-68, col. 18, lines 30-56, col. 22, lines 3-11.

It would have been obvious to one having ordinary skill in the art to clearly provide a storage for in flight data and include a specific parameter such as vertical acceleration as part of the in flight data in the aircraft data transmission system of Ross because the use and advantages of a storage for in flight data which includes a specific parameter such as vertical acceleration as part of the in flight data in the aircraft data transmission system is clearly suggested by Miller, Jr.

Miller also provides for the automatic or manual operation of switches for the transmission of flight data, see col. 8, lines 5-24.

Claims 60 and 71are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al and Miller as applied in claims 59 and 70 further in view of in view of Miller et al (5,652,717).

Miller shows in figure 2 the acquisition of data from an aircraft 14, col. 2, lines 34-45, and provides for a telecommunication network 22 and internet communication, col. 3, lines 4-18, 65 et seq.

Miller is relied upon to show that it is conventional to manipulate the data received from the aircraft 14 through an Internet connection 30.

Claims 60 and 71 only recite that the data reception unit is in communication with the cellular infrastructure via the Internet.

Cellular infrastructure is clearly as 24 in Ross et al.

The Internet connection 30 which is at the reception unit provides an Internet access as disclosed by Miller

Accordingly, it would have been obvious to one having ordinary skill in the art to provide an internet connection for communication purposes in a reception unit because the specific use of providing an internet connection for communication purposes in an reception unit concerned with aircraft data acquisition and transmission is clearly suggested by Miller, see col. 3, lines 25-44, and specifically lines 40-44, for interactive internet support.

Claims 61 and 72are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al and Miller as applied in claims 59 and 70 further in view of in view of Bannister

Bannister shows a data acquisition system and provides for conventional PSTN interfaced with the Internet, see figure 1 and related disclosure.

Accordingly, Bannister teaches the artisan the combined use of PSTN AND INTERNET.

Accordingly, at the time the invention was made, the combined use of cellular communication, Internet access, and PSTN are all well known and conventional as evidenced by the teachings of the references as discussed above.

Patentable invention is not involved in employing Internet connection through the cellular phone system such as conventional (PSTN), see Bannister.

Claims 73 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al in view of Miller, Jr. further in view of Polivka et al.

Polivka shows in an aircraft data acquisition and transmission means as shown in figure 3a and 3b, and provides for the acquisition of data such as a video camera 327 I figure 3a, compressing (323, figure 3a), encrypting (such as forward error correction encoder unit 330, figure 3b), segmenting and constructing packets of data from the segmented flight data (PSK/SPREAD spectrum modulator 361 in figure 3b), see col. 10, lines 13 et seq.

With respect to claim 74, the acknowledgement of receipt of the transmitted data is no more than the response due to the video teleconference as provided for in Polivka, col. 10, such is no more than conventional bi-directional communication and would not involve patentable invention.

It would have been obvious to one having ordinary skill in the art to process the flight data of Ross as modified by Miller Jr. in the aircraft data transmission system in a manner as suggested by Polivka in an aircraft data transmission system.

Any advantages seen are those naturally expected due to the specified processing of Polivka.

(10) Response to Argument

Applicant's arguments filed have been fully considered but they are not persuasive. Applicants argue that in view of FAA section 121.343, the disclosed and claimed flight data "inherently" includes time, airspeed, altitude, vertical acceleration, and heading data.

Applicants further state that "other data" are also recorded as set forth in the regulation.

The examiner contends that the flight data with respect to time, airspeed, altitude, vertical acceleration, and heading data are specific data that is transmitted, and this data are not included in the original specification or drawings.

Other data may be monitored, however, it is submitted that among the other data monitored, only the specific data that includes time, airspeed, altitude, vertical acceleration, and heading data is transmitted or communicated to a data reception unit.

Applicants have not disclosed this specific data for transmission.

Accordingly, there is no supporting arguments that the specific data is inherent in a flight recorder and certainly no supporting argument that the specific data is transmitted.

A flight recorder includes lots of data, but such data is not necessarily transmitted during landing, so there is no inherent transmission of the specific data.

A review of applicants' disclosure lacks mention of this specific data for storage as well as transmission.

It is submitted that even though the FAA requirement for the monitoring of data specified by the rule, there is no rule governing the transmission of the specific monitored data as represented in the claims.

Accordingly, applicants' disclosure fails to set forth the specific flight data in the form time, airspeed, altitude, vertical acceleration, and heading data as well as the communication of such specific flight data to a data reception unit.

The examiner considers the teachings of Miller, Jr. pertinent with respect to the examination of the claims at issue as indicated above.

Applicant cannot import data from one document such as the 717 document submitted as exhibit 1 into the specification of the patent application. Such data must be present as originally filed.

This document does not cure the defect.

It does not matter if regulations with respect to parameters are required under FAA guideline section 121.343.

Such regulations with respect to governing parameters must be present in the original disclosure.

There is no mention in the original disclosure as to the questioned matter as referenced above.

The incorporation of such into the specification as well as the claims is new matter.

Applicant further argues that Ross fails to transmit data after the aircraft has landed.

It is submitted that Ross clearly provide for the transmission of information in response to switch 14 being closed upon landing, see col. 5, lines 48-66.

Ross further states that data or information other that flight cancellation data is transmitted, for instance aircraft status data, see col. 6, lines 64-68.

The status data would include flight parameter data or data acquired by controller 10, for instance altitude, air speed, and direction of the aircraft, col. 6, lines 13-22, figure 2, and block 66.

Miller with respect to claim 59 are relied upon to show the conventionality of a flight parameter such as vertical acceleration.

The skilled artisan would find it to be a matter of routine to include a flight parameter such as vertical acceleration as part of the status data in Ross because of the conventionality of such as suggested by Miller.

Conventional flight status data are within the meaning of status data as disclosed by Ross.

The examiner contends that the status data of Ross is gathered and stored during flight.

Applicants' arguments with respect to real time data are not persuasive since Ross provides for the transmission of status data which the artisan recognizes as airspeed, altitude, and direction of the aircraft. Ross teaches that the controller 10 communicates with instrumentation of the aircraft for such data; see col. 6, lines 18-22.

The controller 10 is activated for example by switch 12 to initiate transmission of the status data. Only the GPS location data is dynamic. The status data relating to the aircraft parameters are conventionally stored as evidenced in the teachings of Miller (4729102).

The artisan would recognize that the instrumentation may provide storage of these parameters or status data for access by controller 10.

Miller (4729102) shows the aircraft data transmission system with a data storage medium in flight data recorder data acquisition circuitry 10, figure 1.

Accordingly, it would have been obvious to the skilled artisan to clearly provide storage for status data in Ross as taught by Miller (4729102)

CONCLUSION

In conclusion Ross transmit flight data wirelessly while in flight and transmit other data wirelessly once landing is confirmed by landing switch.

Miller teaches transmission of flight data wirelessly while in flight, and also transmission of flight data by wire after landing. Miller further teaching it is desirable to

transmit flight data wirelessly in order to allow evaluation and analysis of flight data (col. 8, line 38).

Thus, it would have been obvious to wirelessly transmit flight data once plane was grounded, in order that personnel could evaluate and analyze data more quickly and efficiently. Both Ross and Miller teach the known concept of wirelessly transmitting flight data from an aircraft, Ross teaches wireless transmission of data once aircraft is grounded, and Miller teaches desirability of downloading flight data once grounded.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

DONNIE L. CROSLAND

EXAMINER

2612

BRIAN ZIMMERMAN
SUPERVISORY PATENT EXAMINER

Conferees:

JEFFERY HOFSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST

255 S. ORANGE AVENUE

SUITE 1401

ORLANDO, FL. 32801